Forcing times (NLDAS) ...

cbblanke 38 posts since

Apr 18, 2008

The "List of NLDAS Forcing File Contents" available at http://ldas.gsfc.nasa.gov/LDAS8th/forcing/forcing.shtml says:

*****Note, all non-precipitation forcing fields are instantaneous*

*****All precipitation fields are 1-hour accumulations*

For example, for data in the file "2006012306.FORCING.GRB", non-precipitation fields are valid at 06Z, and precipitation fields represent the precipitation which fell between 05Z and 06Z.

If I have a model time of 0530, the air temperature, pressure, humidity, etc. are interpolated from the 5Z and 6Z forcings. Ideally the precip forcing for 0530 should be what is in the 6Z file only, since we are in the middle of the accumulation time. (And at 6Z it should interpolate the 6Z and 7Z forcing files for precip and use the 6Z data for the other variables.)

Does LIS do this? (It looks to me like no.) Is this desirable or is 30 minutes close enough in LSMs?

Clay Tags: lis, forcing, time, interpolation

sujay *118 posts since*
Sep 20, 2007 1. **Re: Forcing times (NLDAS)** Jun 19, 2008 1:15 PM

Yes. The time interpolation of the precip fields (for NLDAS forcing) in LIS assumes that the input fields are accumulations. As you can see in the code, at model timesteps that fall in between the forcing data timesteps, a constant rate of precip (that correspondes to the next closest timestep) is assumed.

-S